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In the Claims:

Please cancel claims 9, 20, 31, 35, 42 and 49 without prejudice or dedication.

Please amend the claims as indicated below.
_____

1. (Currently Amended) A method of maintaining a route table in a routing device, the route table including a plurality of routes between network devices in a network, the method comprising:

registering a given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network;

determining if any of the routes in the given set of routes has changed; and

listing data identifying each route in the given set of routes that has been determined to be changed, wherein the act of listing includes storing a pointer to each route in the given set of routes that has been determined to be changed in a list of changed routes for the given set of routes associated with the given routing protocol.

2. (Canceled)

3. (Original) The method as defined by claim 1 further comprising:

if determined to have changed, then generating a first data value indicating that at least one of the routes in the given set of routes has changed.

4. (Original) The method as defined by claim 3 wherein each route in the set of routes includes an associated sequence number, the first data value being a checksum that is a function of at least one of the sequence numbers.

5. (Original) The method as defined by claim 1 wherein a given route in the table includes a list data value indicating whether the given route has been listed, the given route being in the given set of routes.

6. (Original) The method as defined by claim 5 wherein the list data value is a single bit associated with the given set of routes.

7. (Original) The method as defined by claim 5 wherein the act of listing comprises:

determining if the list data value has been set; and

listing the given route if it has been determined that the list data value has not been set, the given route not being listed if it has been determined that the list data value has been set.

8. (Original) The method as defined by claim 7 wherein the act of listing further comprises:

setting the list data value.

9. (Canceled)

10. (Original) The method as defined by claim 1 further comprising:

accessing the list to determine each route that has changed.

11. (Original) the method as defined by claim 10 wherein the list is accessed once during each of a selected polling interval.

12. (Currently Amended) An apparatus for maintaining a route table in a routing device, the route table including a plurality of routes between network devices in a network, the apparatus comprising:

a registration module that registers a given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing

protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network;

a route examiner operatively coupled with the registration module, the route examiner determining if any of the routes in the given set of routes has changed; and

a list generator operatively coupled with the route examiner, the list generator listing data identifying each route in the given set of routes that has been determined to have changed, wherein the listing includes storing a pointer to each route in the given set of routes that has been determined to be changed in a list of changed routes for the given set of routes associated with the given routing protocol.

13. (Canceled)

14. (Original) The apparatus as defined by claim 12 further comprising:

a first data value generator operatively coupled with the route examiner, the first data value generator generating, if at least one of the routes is determined to have changed, a first data value indicating that the at least one of the routes in the given set of routes has changed.

15. (Original) The apparatus as defined by claim 14 wherein each route in the set of routes includes an associated sequence number, the first data value being a checksum that is a function of at least one of the sequence numbers.

16. (Original) The apparatus as defined by claim 12 further including a list data value generator operatively coupled with the list generator, the list data value generator generating a list data value indicating whether a given route has been listed, the given route being in the given set of routes.

17. (Original) The apparatus as defined by claim 16 wherein the list data value is a single bit associated with the given set of routes.

18. (Original) The apparatus as defined by claim 16 wherein the list generator comprises:

a determiner that determines if the list data value for the given route has been set; and

a lister that lists data identifying the given route if it has been determined that the list data value has not been set, data identifying the given route not being listed if it has been determined that the list data value has been set.

19. (Original) The apparatus as defined by claim 18 wherein the list generator further comprises:

a list data value setter that sets the list data value.

20. (Canceled)

21. (Original) The apparatus as defined by claim 12 further comprising:

a list accessing module that accesses the list to determine each route that has changed.

22. (Original) The apparatus as defined by claim 21 further comprising a poller that accesses the list once during each of a selected polling interval.

23. (Currently Amended) A computer program product for use on a computer system for maintaining a route table in a routing device, the route table including a plurality of routes between network devices in a network, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code including:

program code for registering a given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network;

program code for determining if any of the routes in the given set of routes has changed; and

program code for listing data identifying each route in the given set of routes that has been determined to have changed, wherein the act of listing includes storing a pointer to each

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route in the given set of routes that has been determined to be changed in a list of changed routes for the given set of routes associated with the given routing protocol.

24. (Canceled)

25. (Original) The computer program product as defined by claim 23 further comprising:

    program code for generating a first data value indicating that at least one of the routes in the given set of routes has changed if the at least one of the routes determined to have changed.

26. (Original) The computer program product as defined by claim 25 wherein each route in the set of routes includes an associated sequence number, the first data value being a checksum that is a function of at least one of the sequence numbers.

27. (Original) The computer program product as defined by claim 23 wherein a given route in the table includes a list data value indicating whether the given route has been listed, the given route being in the given set of routes.

28. (Original) The computer program product as defined by claim 27 wherein the list data value is a single bit associated with the given set of routes.

29. (Previously Amended) The computer program product as defined by claim 27 wherein the program code for listing comprises:
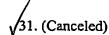
    program code for determining if the list data value has been set; and

    program code for listing the given route if it has been determined that the list data value has not been set, the given route not being listed if it has been determined that the list data value has been set.

30. (Previously Amended) The computer program product as defined by claim 29 wherein the program code for listing further comprises:

    program code for setting the list data value.

31. (Canceled)

32. (Original) The computer program product as defined by claim 23 further comprising:

program code for accessing the list to determine each route that has changed.

33. (Original) The computer program product as defined by claim 32 wherein the list is accessed once during each of a selected polling interval.

34. (Currently Amended) A method of determining if a given route table has changed, the route being in a given set of routes of a plurality of routes between network devices in a network, the method comprising:

accessing a list of routes associated with the given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network, wherein the list of routes includes a pointer to a route table entry for each route in the given set of routes that has been determined to have been changed in the given set of routes associated with the given routing protocol; and

determining if data identifying the given route is listed in the list of routes, the given route being deemed to have changed if determined to be listed in the list of routes.

35. (Canceled)

36. (Canceled)

37. (Original) The method as defined by claim 34 wherein the list of routes is accessed once during every polling period.

38. (Original) The method as defined by claim 34 wherein the data identifying the given route includes a pointer to the route in the route table.

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39. (Original) The method as defined by claim34 further comprising:

    examining a check data value to determine if any one of the routes in the given set of routes has changed;

    the list of routes being accessed after it is determined that any one of the routes in the given set of routes has changed.

40. (Original) The method as defined by claim 39 wherein the check data value is a checksum.

41. (Currently Amended) An apparatus for determining if a given route in a route table has changed, the route being in a given set of routes of a plurality of routes between network devices in a network, the apparatus comprising:

    a list accessing module that accesses a list of routes associated with the given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network, wherein the list of routes includes a pointer to a route table entry for each route in the given set of routes that has been determined to have been changed in the given set of routes associated with the given routing protocol; and

    a route examiner operatively coupled with the list accessing module, the route examiner determining if data identifying the given route is listed in the list of routes, the given route being deemed to have changed if determined to be listed in the list of routes.

42. (Canceled)

43. (Canceled)

44. (Original) The apparatus as defined by claim 41 further comprising a poller that accesses the list once during every polling period.

45. (Original) The apparatus as defined by claim 41 wherein the data identifying the given route includes a pointer to the route in the route table.

46. (Original) The apparatus as defined in claim 41 further comprising:

a check data value that examines a check data value to determine if any one of the routes in the given set of routes has changed,

the list of routes being accessed after it is determined that any one of the routes in the given set of routes has changed.

47. (Original) The apparatus as defined by claim 46 wherein the check data value is a checksum.

48. (Currently Amended) A computer program product for use on a computer system for determining if a given route in a route table has changed, the route being in a given set of routes of a plurality of routes between network devices in a network, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code including:

program code for accessing a list of routes associated with the given set of routes of the plurality of routes between network devices in a network, wherein the given set of routes is associated with a given routing protocol, and wherein the given set of routes is a subset of the plurality of routes between the network devices in the network, wherein the list of routes includes a pointer to a route table entry for each route in the given set of routes that has been determined to have been changed in the given set of routes associated with the given routing protocol; and

program code for determining if data identifying the given route is listed in the list of routes, the given route being deemed to have changed if determined to be listed in the list of routes.

49. (Canceled)

50. (Canceled)

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51. (Original) The computer program product as defined by claim 48 wherein the list of routes is accessed once during every polling period.

52. (Original) The computer program product as defined by claim 48 wherein the data identifying the given route includes a pointer to the route in the route table.

53. (Original) The computer program product as defined by claim 48 further comprising:

    program code for examining a check data value to determine if any one of the routes in the given set of routes has changed,

    the list of routes being accessed after it is determined that any one of the routes in the given set of routes has changed.

54. (Original) The computer program product as defined by claim 53 wherein the check data value is a checksum.